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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,756	07/30/2003	Takayuki Hattori	2927-0152P	6804
2292	7590	03/22/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SERGENT, RABON A	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,756

Applicant(s)

HATTORI ET AL.

Examiner

Rabon Sergent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/30/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. Claims 1, 2, 7, 8, and 10-14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for conductive urethanes wherein the conductive property is due to the presence of an organic ionic-conductive agent, does not reasonably provide enablement for conductive urethanes that lack the aforementioned agent. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Applicants have failed to provide guidance that would enable one of ordinary skill to produce conductive urethanes having the claimed properties that lack the aforementioned organic ionic-conductive agent. Since applicants provide no guidance for rendering the urethanes conductive by other means, the position is taken that the claims should reflect the composition for which applicants have provided enablement.

2. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to provide an adequate written description with respect to the subject matter governing JIS K6262, JIS K6911, and JIS K-6253.

3. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Applicants have failed to provide enablement for the features pertaining to JIS K6262, JIS K6911, and JIS K-6253, because the specifics of the standards have not been set forth. In the absence of this information, one of ordinary skill cannot duplicate or realize the claimed features with respect to compression set, volume resistivity, and hardness.

4. Claims 3-9 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claim 3, the language, "containing chlorine or bromine", is confusing, because it is unclear if the language is to further limit the ammonium salts or the "ion-conductive agent". Furthermore, the language, "said volume resistivity", lacks antecedent basis from claim 1.

Within claim 6, applicants have failed to specify the type (weight, molar, etc.) and basis for the claimed percent value. Is the value based on the composition or total salt or some other entity?

Within claim 7, applicants have failed to specify the basis for the claimed percent value. Is the value based on the polyether polyol or composition or some other entity?

Within claim 8, the meaning or purpose of the language, "as a base thereof", is not understood.

Within line 2 of claim 14, there appears to be an omission after "used".

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vreeland et al. ('001 or '457) or Gloyer et al. ('576), each in view of Barksby et al. ('445) and Knobel et al. ('669).

The primary references disclose rollers comprising an electrically conductive polyurethane coating, wherein the polyurethane is derived from a polyol free of unsaturation and contains a conductivity or charge control agent, such as an organometallic salt. See abstract and column 7, line 49 within Vreeland et al. ('001). See abstract and column 9, line 51 within Vreeland et al. ('457). See abstract and paragraph 54 within Gloyer et al.

7. While the primary references disclose that the polyol reactant is free of unsaturation, the references fail to specifically recite applicants' claimed polyether polyol having the claimed degree of unsaturation. However, applicants' claimed low unsaturated polyether polyol was a known component for polyurethane elastomers having physical properties especially adapted for use in the manufacture of rollers. This position is supported by the teachings of Barksby et al. See abstract; column 6, lines 6-14; and column 7, lines 44+ within Barksby et al. Furthermore, applicants' claimed salts were specifically known at the time of invention to be useful for

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promoting electrical conductivity in polyurethanes. See abstract; column 4, line 65; column 6, lines 23+; and columns 7 and 8 within Knobel et al.

8. Therefore, since applicants' claimed low unsaturation polyether polyol was known to be useful for producing rollers having improved properties and since applicants' claimed salts were known conductivity agents for polyurethanes, the position is taken that it would have been obvious to incorporate these components within the electrically conductive polyurethanes of the primary references, so as to obtain a composition and roller having the improved properties disclosed by the secondary references. This position is bolstered by the fact that it has been held that it is *prima facie* obvious to utilize a known compound for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244.

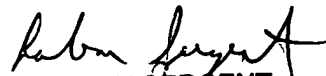
9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vreeland et al. ('001 or '457) or Gloyer et al. ('576), each in view of Barksby et al. ('445) and Knobel et al. ('669) as applied to claims 1-10 and 12-14 above, and further in view of Nogami et al. ('646) or Priebe et al. ('188).

As aforementioned, the teachings of Vreeland et al. ('001 or '457) or Gloyer et al. ('576), each in view of Barksby et al. ('445) and Knobel et al. ('669) are considered to render applicants' composition and roller *prima facie* obvious; however, these references are silent regarding applicants' plasma treatment of the metal shaft. Still, the treatment of metal with plasma to improve its adhesion to other layers, including polymers, was known at the time of invention. See column 10, lines 4-10 within Nogami et al. See abstract and column 2, lines 20+ within Priebe et al. Therefore, the position is taken that it would have been *prima facie* obvious

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to plasma treat the metal shaft of the roller prior to application of the elastomer, so as to improve the adhesion of the elastomer to the metal surface and the durability of the resulting roller.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent
March 17, 2005